CLAIMS

What is claimed is:

1. A library for cartridges of a data storage tape, comprising:

at least one drive comprising a cartridge pocket;

a magazine comprising one or more receivers for holding the cartridges, said receivers being selectively positionable in front of the cartridge pocket in order to transfer a cartridge between the receiver and the cartridge pocket; and

and a housing having a port through which cartridges can be inserted into the magazine and removed from the magazine,

wherein the cartridge pocket of at least one drive, a receiver positioned in front of the cartridge pocket, and the port are disposed aligned with one another such that a cartridge can be directly transported linearly through the port and the receiver into the cartridge pocket or can be transported from the cartridge pocket through the receiver and the port.

2. The library as claimed in claim 1, wherein the receivers in the magazine revolve on a closed path of revolution about the at least one drive.

3. The library as claimed in claim 2, wherein cartridges in the cartridge pocket and in the receivers are disposed with a flat side in a common plane, said common plane being substantially parallel to a plane of the revolution of the magazine.

4. The library as claimed in claim 1, further comprising a gripper system for transporting the cartridge between a receiver and a cartridge pocket and between a receiver and the port, said gripper system including a pair of grippers, said grippers being adapted to selectively grasp and release a cartridge, said gripper system being linearly movable in a direction of transport of the cartridge, and said grippers being opposingly movable

transversely to said direction of transport.

5. The library as claimed in claim 4, wherein said gripper system is adapted to transport cartridges in one or more transport steps, said grippers regrasping said cartridge during each of said steps.

6. The library as claimed in claim 4, wherein said grippers are adapted to engage a cartridge in front or behind said cartridge in order to push said cartridge into said cartridge pocket or through said port.

7. A method of inserting a cartridge into a cartridge pocket in a library for cartridges of a data storage tape, comprising:

providing a cartridge pocket of a drive in alignment with a port in a housing of a library;

aligning a carrier with said cartridge pocket and said port along a transport axis;

inserting a cartridge at least partially through said port;

engaging opposing sides of said cartridge with a pair of grippers provided within said housing;

driving said pair of grippers in a direction away from said port along said transport axis, thereby sliding said cartridge toward said cartridge pocket; and

disengaging said grippers from said cartridge.

8. The method according to claim 7, further comprising:

engaging a rear end of said cartridge with said pair of grippers; and

driving said pair of grippers along said transport axis, thereby forcing said cartridge into said cartridge pocket.

9. A method of removing a cartridge from a cartridge pocket in a library for cartridges of

a data storage tape, comprising:

providing a cartridge pocket of a drive in alignment with a port in a housing of a library;

aligning a carrier with said cartridge pocket and said port along a transport axis;

ejecting a cartridge from said cartridge pocket along said transport axis, whereby at least a portion of said cartridge is located outside of said cartridge pocket;

engaging opposing sides of said cartridge with a pair of grippers;

driving said pair of grippers in a direction away from said cartridge pocket along said transport axis, thereby sliding said cartridge at least partially out of said cartridge pocket; and

disengaging said grippers from said cartridge.

10. The method according to claim 9, further comprising:

engaging a front end of said cartridge with said pair of grippers; and

driving said pair of grippers along said transport axis, thereby forcing said cartridge onto said carrier.